

Technology Transfer and Intellectual Property Management at LBNL



Nuclear Science Division
April 28, 2008

Overview

- Why we do it
- What we get out of it
- How we do it
 - ROI Submission
 - Evaluation
 - Patenting
 - Marketing
 - Licensing
- Working with a company
- What to remember

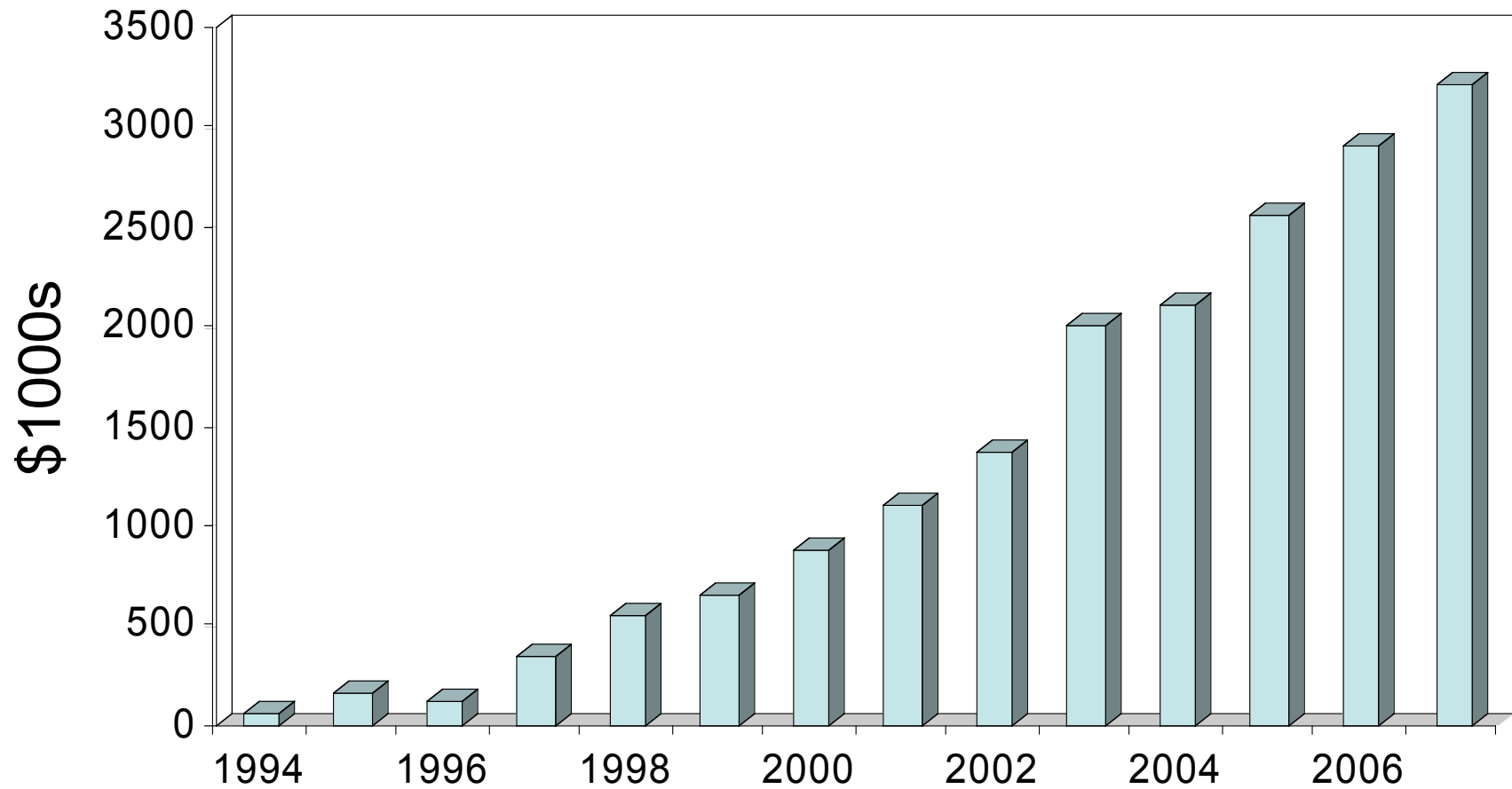


Reasons for Technology Transfer

- We are required to do it
 - Contract 31 (UC manages LBNL for DOE)
 - LBNL must report every invention to DOE.
 - Every employee must file with the TTD an invention disclosure on every invention conceived anywhere.
- We really want to do it
 - Make new technologies useful in the real world.
 - Accountability: allow tax payers to profit from research they fund.



Licensing Income

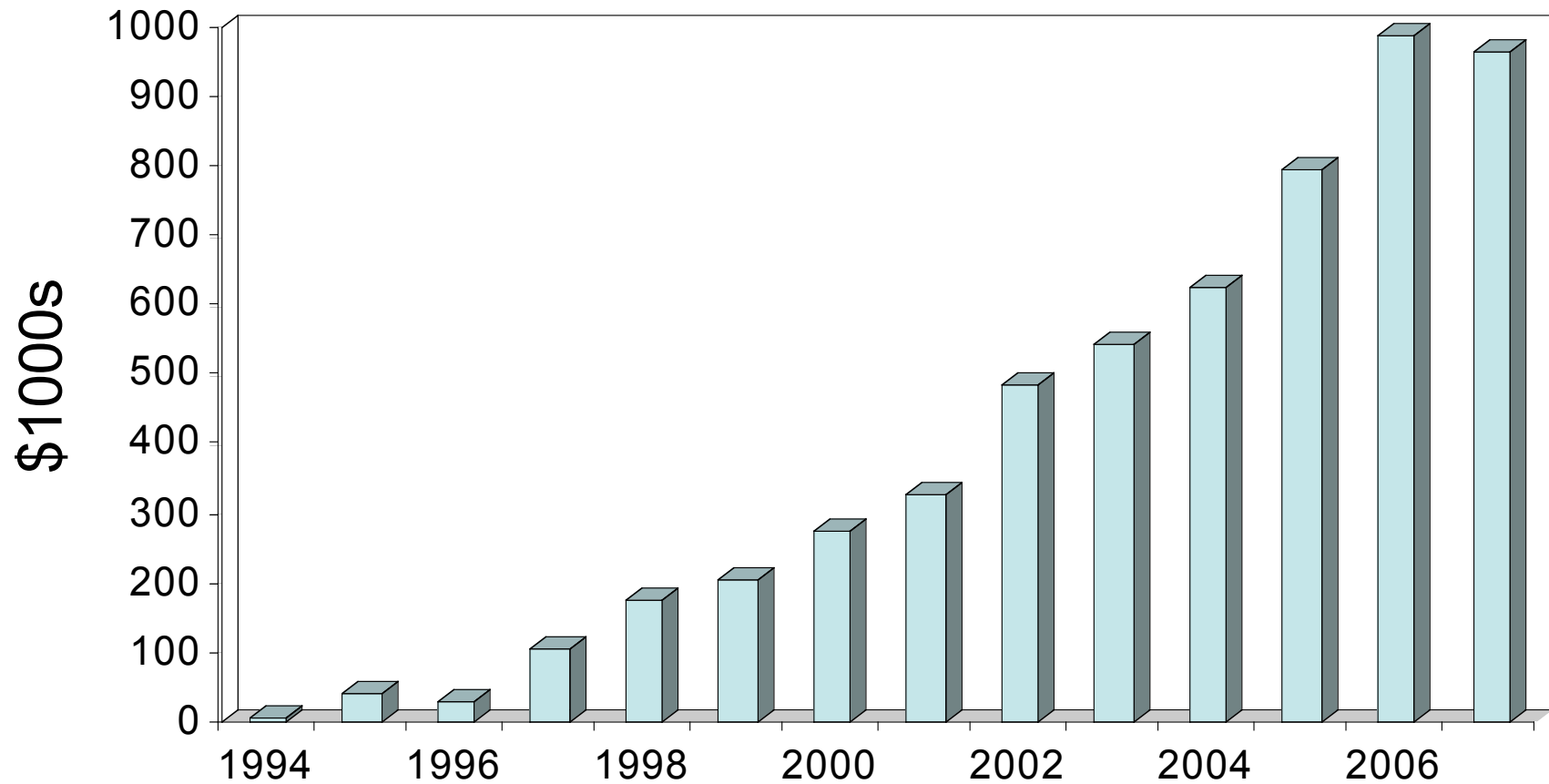


Distribution of Royalty Income

- Patent costs are paid first
- Distribution
 - 50% to Laboratory Central Research Pool
 - 15% to Division
 - 35% to Inventors
- Some inventors are grandfathered in under a slightly different distribution policy



Inventor Royalty Distributions



When to submit a Record of Invention (ROI)

- Always: before any public disclosure
- When a technology is “ready”
 - You are convinced that your new material or device or process works
 - You can provide details to explain how to reproduce your result
 - When you are ready to prepare a manuscript for publication
 - When you have built your first prototype
- When you think others may be able to scoop you
- We can write better patent applications with more lead time.
 - It is difficult when we learn about the invention only days or weeks.
- If in doubt, ask!



What can constitute a public disclosure?

- Printed publication
- Poster presentation
- Thesis or dissertation on a library shelf
- Proposal to a federal agency
- Report to a research sponsor
- Television or radio interview
- Oral presentation to an audience that includes non-LBNL people
- Conversation with a non-LBNL person (unless a Non-Disclosure Agreement has been signed)
- Abstract submitted for a professional conference



What makes a public disclosure enabling?

- When it is detailed enough
 - to enable a person “skilled in the art” to duplicate or use it
 - to make the invention obvious to such a person
- Clearly these are subjective criteria
 - It is best to be conservative in assessing enablement!



Ideal timing for the Patent Process (1/2)

- Submit Record of Invention (ROI) to Technology Transfer Patent Group
- Write and submit manuscript for publication
- Tech Transfer simultaneously reviews invention and decides whether to apply for patent protection (before any publication including an abstract)

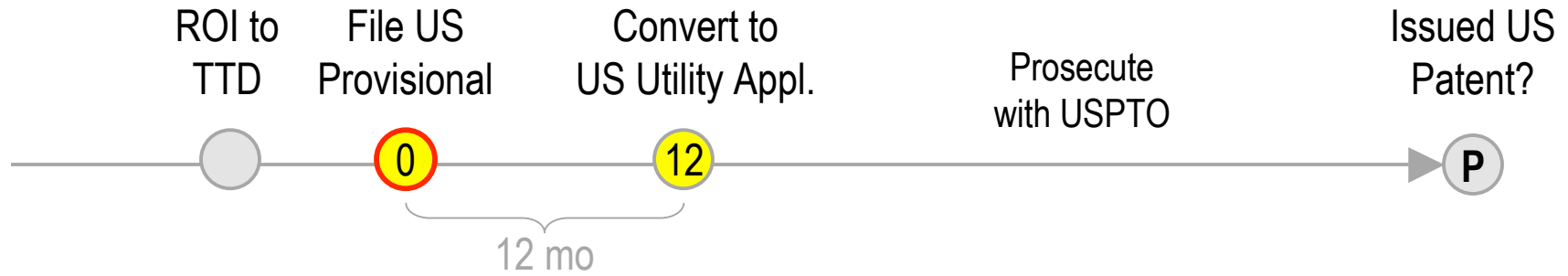


Ideal timing for the Patent Process (2/2)

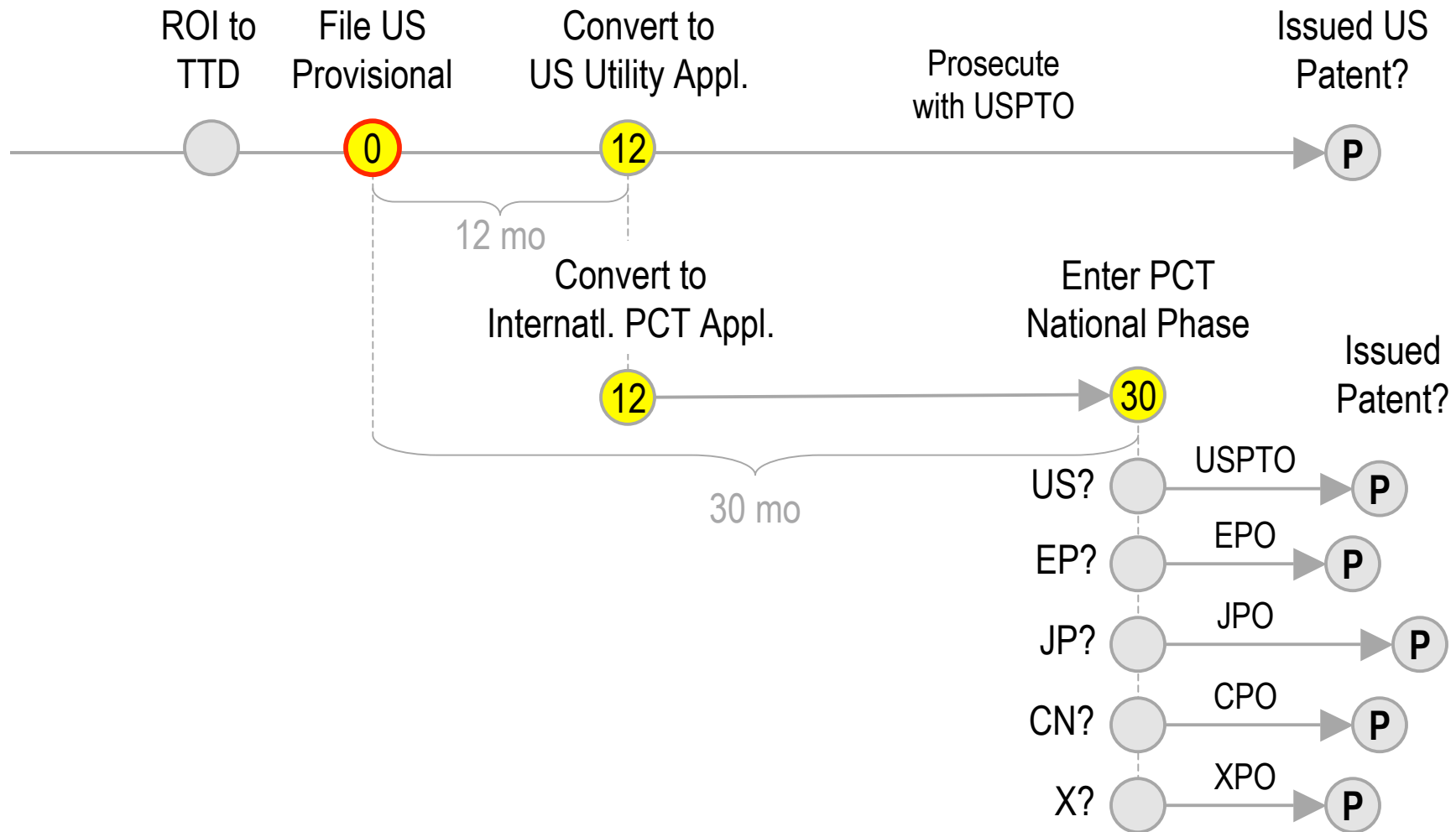
- If selected, a US provisional patent application is filed
- One year after the provisional patent application filing date, a full utility patent application is filed or the provisional application goes abandoned
- It can take from 3 to 7 years from the utility application filing date for a patent to be granted



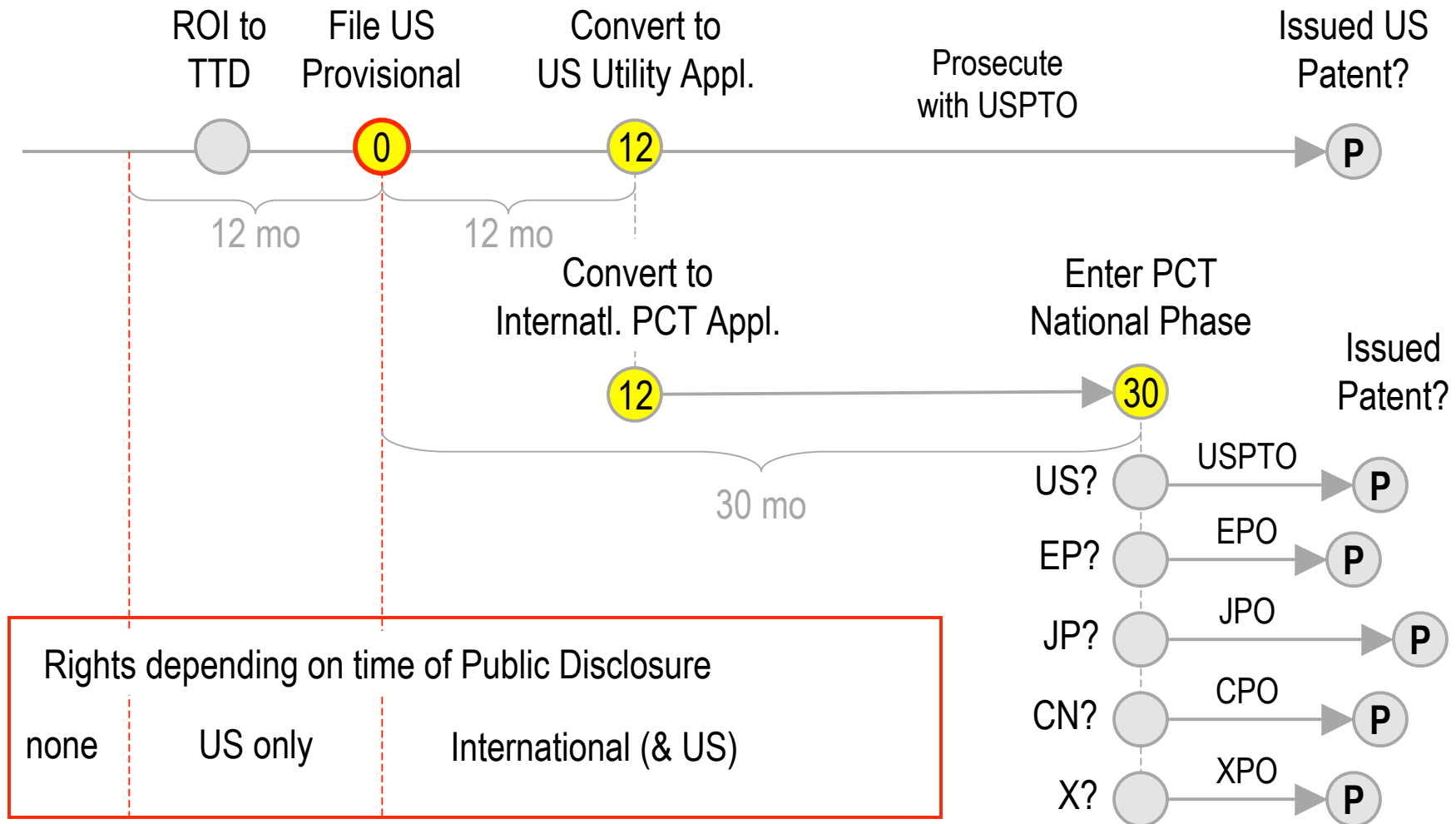
Patent Filing Process (1/3)



Patent Filing Process (2/3)



Patent Filing Process (3/3)



Evaluation

- Stage of development of the invention?
 - May delay assessment until additional data is available
 - May need to make immediate assessment in view of publication
- Is there a market need or a potential market need?
 - Existing products?
 - Problem or market niche addressed?
 - Unique or significantly better?
- What is already “out there”?
 - Already patented?
 - Already published?
 - Already available?
- Assess before “Public Disclosure”
 - If not, foreign patent rights are lost.



What can be Patented?

- Patents may be granted for
 - Process
 - Machine
 - Article of manufacture
 - Composition of matter
- An invention does not have to be totally new
 - Can be a new and useful improvement to an existing product or method
- An invention must be
 - Novel
 - Non-obvious
 - Adequately described for “one of ordinary skill in the art” to make and use the invention.



Marketing

- Market the technology
 - Targeted or broad?
- Scientists provide some of the most valuable industry contacts
 - You know the field and competing technologies
- How scientists can identify industry contacts:
 - Publishing
 - Speaking at conferences or meetings
 - Forwarding non-enabling descriptions to research managers/decision makers at companies
 - Responding promptly to industry/VC contacts referred by TTIPM



What is licensed?

- LBNL licenses primarily
 - Patent Rights
 - Software
 - Biological Materials
 - Cell lines
 - Transgenic mice



Agreements Negotiated by Tech Transfer

- Non-Disclosure Agreements (NDAs)
- Materials Transfer Agreements (MTAs)
 - LBNL to/from Academia
 - LBNL to/from Industry
- Commercial Transfer of Research Materials
 - Cell lines, transgenic mice or knockout mice
- Options and Licenses
 - Inventions or software transferred to industry
 - Inventions protected by filing a patent application
 - Software protected by copyright



Inventions funded under WFO

- Submit Record of Invention (ROI) to Technology Transfer Patent Group; correct funding is identified
- Patent group reports invention to Sponsor
- Tech Transfer reviews invention and determine if LBNL has rights and to determine ownership
- Tech Transfer discusses invention with Sponsor if the Sponsor has rights and determines whether to file a patent application and who will pay
- Before any publication, the Sponsor is allowed sufficient review time to approve any publication
- Sponsor and LBNL PI determine when to publish



Tech Transfer Main points

- As you are submitting an abstract, fill out your ROI and/or call us.
- Write non-enabling abstracts
- Indicate correct funding sources
- Comply with our WFO agreements requirements
- NDAs and MTAs are required anytime information or materials are exchanged



Contact Information for NSD

- Home Page

- <http://www.lbl.gov/tt/>

- Licensing

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- NDAs and MTAs

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- Sponsored Projects Office

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Key License Terms

- **Financial terms**

- License issue fee
- Annual minimum payments
- Earned royalties
 - % of Net Sales
 - \$ per product sold
- Reimbursement of patent costs
- Equity in start-up companies (in some cases)
- Assignment fee (in some cases)

- **Non-financial terms**

- Definitions
- Grant
- Development milestones & diligence provisions
 - Prototype
 - First Commercial Sale
- Warranties and indemnities
- Infringement actions
- Dispute resolution



Contact Information

Technologies	Licensing	Patenting
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